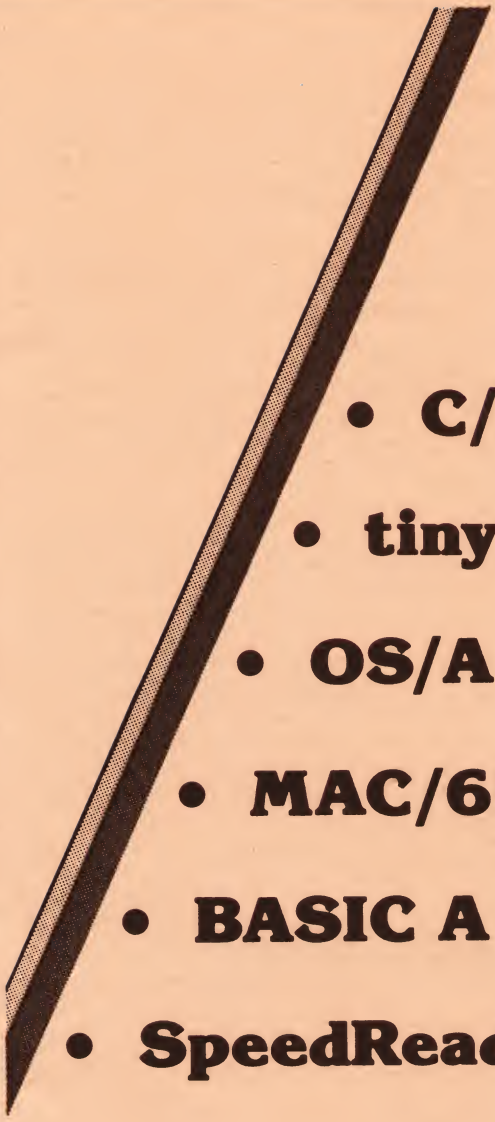

- **C/65**
- **tiny-c**
- **OS/A+**
- **MAC/65**
- **BASIC A+**
- **SpeedRead+**

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SYNTAX SUMMARY
for BASIC A+ and ATARI BASIC

STATEMENTS

*Denotes features found ONLY in BASIC A+
†Denotes statements not in Apple version

```
 *BGET #fn, addr, len
 *BPUT #fn, addr, len
  BYE
† CLOAD
  CLOSE #fn
  CLR
  COLOR aexp
  CONT
 *CP
† CSAVE
  DATA ⟨ascii data⟩
  DEG
 *DEL line [,line]
  DIM svar (aexp)
  DIM mvar (aexp[,aexp])
 *DIR filename
  DOS
 *DPOKE addr, aexp
  DRAWTO aexp, aexp
 *ELSE {see IF}
  END
 *ENDIF {see IF}
 *ENDWHILE
  ENTER filename
 *ERASE filename
  FOR avar=aexp TO aexp
      [STEP aexp]
  GET #fn, avar
  GOSUB line
  GOTO line
  GRAPHICS aexp
  IF aexp THEN ⟨stmts⟩
  IF aexp THEN line
 *IF aexp : ⟨stmts⟩
    ELSE : ⟨stmts⟩
  ENDIF
 *INPUT "...", var
      [,var. . .]
  INPUT [#fn,] var
      [,var. . .]
  [LET] svar=sexp
      [,sexp. .]
  [LET] avar=aexp
  [LET] mvar=aexp
  LIST [filename]
  LIST [filename,] line
      [,line]
  LOAD filename
  LOCATE aexp, aexp, avar
 *LOMEM addr
  LPRINT [exp [;exp. . .]
      [,exp. . .] ]
 *LVAR filename
†*MISSILE pm, aexp, aexp
 *MOVE fromaddr,
      toaddr, lenaexp
  NEW
  NEXT avar
  NOTE #fn, avar, avar
  ON aexp GOTO line
      [,line. . .]
  ON aexp GOSUB line
      [,line. . .]
  OPEN #fn, mode, avar,
      filename
  PLOT aexp, aexp
†*PMCLR pm
†*PMCOLOR pm, aexp, aexp
†*PMGRAPHICS aexp
†*PMMOVE pm [,aexp]
      [;aexp]
†*PMWIDTH pm, aexp
  POINT #fn, avar, avar
  POKE addr, aexp
  POP
  POSITION aexp, aexp
  PRINT [#fn]
  PRINT exp [ [;exp. . .]
      [,exp. . .] ] [;]
  PRINT #fn [ [;exp. . .]
      [,exp. . .] ] [;]
 *PRINT [#fn,] USING sexp,
      exp[,exp. . .] ]
 *PROTECT filename
  PUT #fn, aexp
  RAD
  READ var [,var. . .]
  REM ⟨any remark⟩
 *RENAME filenames
  RESTORE [line]
  RETURN
 *RGET #fn, asvar
      [,asvar. . .]
 *RPUT #fn, exp[,exp. . .]
  RUN [filename]
  SAVE filename
 *SET aexp, aexp
† SETCOLOR aexp, aexp, aexp
† SOUND aexp, aexp
      ,aexp, aexp
  STATUS #fn, avar
  STEP ⟨see FOR⟩
  STOP
 *TAB [#fn], avar
  THEN ⟨see IF⟩
  TO ⟨see FOR⟩
 *TRACE
 *TRACEOFF
  TRAP line
 *UNPROTECT filename
 *WHILE aexp
  XIO aexp, #fn, aexp,
      aexp, filename
  ? ⟨same as PRINT⟩
```

FUNCTIONS

```
 ABS(aexp)
 ADR(svar)
 ASC(sexp)
 ATN(aexp)
†*BUMP(pm, aexp)
 CHR$(aexp)
 CLOG(aexp)
 COS(aexp)
 *DPEEK(addr)
 *ERR(aexp)
 EXP(aexp)
 *FIND(sexp,
 sexp, aexp)
  FRE(0)
†*HSTICK(aexp)
  INT(aexp)
  LEN(sexp)
  LOG(aexp)
  PADDLE(aexp)
†*PEN(aexp)
†*PMADR(pm)
  PTRIG(aexp)
  PEEK(addr)
  RND(0)
  SGN(aexp)
  SIN(aexp)
  SQR(aexp)
† STICK(aexp)
† STRIG(aexp)
  STR$(aexp)
 *TAB(aexp)
  USR(addr
  [,aexp. . .])
  VAL(sexp)
†*VSTICK(aexp)
 *SYS(aexp)
```

MAC/65

FIRST we delivered Atari's Assembler Editor (the cartridge).

Then we produced our enhanced EASMD.

NOW OSS is introducing the finest integrated assembly language development system yet.

Naturally, **MAC/65** is upward compatible with both EASMD and the Atari Cartridge. And of course, the object code output is also compatible with OS/A+, Atari DOS and/or Apple DOS, as appropriate.

MAC/65 ..... **$80.00**

OS/A+

OS/A+ is the FIRST AND FINEST operating system for both the Apple II and Atari computers and features a keyboard driven, easy-to-use command processor. In addition to several simple resident commands, OS/A+ allows logical and readable requests for even the most sophisticated utility commands

AND NOW OS/A+ is included as a part of every standard OSS language package.

BUG/65

Introducing **BUG/65**, an extremely useful and powerful debugger. **BUG/65** includes all the traditional debugging operations: change memory, display memory, disassembly, instant assembly and more. Also included is a break point capability, single step and trace modes.

BUG/65 is included FREE with every MAC/65 package.

BUG/65 ..... **$34.95**

FIRST AND FINEST in Systems Software for Apple and Atari Computers

ABOUT OPTIMIZED SYSTEMS SOFTWARE, INC.

If you own an Apple or Atari computer, you're already acquainted with us. The programmers of OSS Inc., produced the original Apple DOS and all versions of Atari BASIC, Atari FMS and the Atari Assembler/Editor.

Optimized Systems Software, Inc., hopes to meet your needs now and in the future. We are dedicated to serious products that span the gap between microcomputers from various manufacturers, and we welcome your suggestions, products and ideas.

BASIC A+

"FROM THE AUTHORS OF ATARI BASIC ..."

BASIC A+ is the only logical upgrade available to the Atari BASIC programmer. While retaining all the features which make Atari BASIC so easy to use, we've also given **BASIC A+** features that place it at the forefront of modern interpretive languages: structured programming, superior input/output, helpful programming aids, and even a very comprehensive PRINT USING command. And, exclusively for the Atari computer, an almost unbelievable array of PLAYER/MISSILE GRAPHICS commands an functions.

BASIC A+ $80.00

C/65

The FIRST native code C compiler ever produced for Atari *and* Apple computers.

C/65 supports a very usable subset of the extremely powerful and popular C language. Just as C is used by the most sophisticated programmers from the professional and academic communities, so shall **C/65** prove to be a powerful and much-needed tool for 6502 software developers.

C/65 ..... **$80.00**

SpeedRead+

The first and still finest speed reading tutor designed for you to use on your computer is available only from OSS.

SpeedRead+ uses time-proven techniques to train you to instantly recognize words and prases, exercises your peripheral vision, improves your eye movement and timing, and generally works with you at your pace... now and in the future.

SpeedRead+ **$59.95**

TINY C

As a product of Tiny-C Associates, **tiny-c** was the first structured language interpreter for microcomputers. Now OSS brings this innovative interpretive language to **your** home computer. While not having the speed of our C/65 compiler, **tiny-c** is an excellent choice for the programming student who is ready to begin learning the valuable techniques of structured programming.

tiny-c **$99.95**

BASIC A+

BASIC A+ will rate an A+ from any business programmer or Atari user! Upward compatible with Atari Basic, it adds statements and features the enhance the Atari 800's real power, flexibility, and ease of use: Superior I/O features for business and other applications. Additional file manipulation commands. Significant help in program development and debug. Structured programming aids. And MORE! A partial list of the enhancements of **BASIC A+** includes:

PLAYER/MISSILE GRAPHICS

The PM Commands

A full set of special statements and functions allows the **BASIC A+** user to exercise almost complete control over the Atari's incredible player/missile hardware.

PMADR and MOVE

With the ability to obtain the memory address of any player or missile combined with the ability to move any block of bytes from and to anywhere in memory, lighting fast changes are possible with **BASIC A+**. And use BPUT and BGET with PMADR for fast P/M loads from disk.

ENHANCED INPUT/OUTPUT

PRINT USING

Easy-to-use, incredibly flexible, uniquely sophisticated. For business use or just for producing readable, sensible output.

PROTECT, UNPROTECT, RENAME, ERASE, DIR

Use these commands with any filename. Or use wildcard searches to affect all or some of the files on a disk.

RGET/RPUT

Provides fixed field I/O in an environment designed for either fixed length or variable length records.

STRUCTURED PROGRAMMING

IF...ELSE...ENDIF

Use these structured programming commands to get rid of those unnecessary GOTO's. Allows any number of statements for either the true or false condition.

WHILE...ENDWHILE

As with all **BASIC A+** control structures, WHILE... ENDWHILE may be nested to any level (subject to available memory).

BGET/BPUT

Provides the BASIC A+ user with assembly level capabilities. Whole blocks of data can be quickly moved between any location and any file or device.

C/65

Another FIRST from OSS!! **C/65** is the FIRST commercially available C compiler for both the Apple and Atari which actually produces assembly language output. (We know of other similar C compilers, but they all produce a "p-code" output which then must be interpreted.) **C/65** is based on the "Small C" compiler, as published in *Dr. Dobbs Journal*, but it has been much restructured to enable it to run on and produce code for our familar 6502 based machines.

C/65 is a usable subset of the powerful C language: it supports INTegers and CHARacters, arrays thereof, and pointers thereto. Naturally, it also features full recursion, easy assembler interface, #INCLUDE, and a non-macro version of #DEFINE. AUTOmatic, global and EXTERNal variables are also available; and, even though neither static nor initialized variales are directly supported, one may easily include assembly language code which effects the desired results. And the language DOES work: we have used it to write several new OS/A+ commands.

Now be one of the FIRST to be using the ever popular C programming language on your Atari or Apple computer.

C/65 requires MAC/65 or an equivalent assembler.

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tiny-c

As part of our continuing effort to support the Atari user community, we have — through special arrangement with tiny-c Associates — developed **tiny-c** for your use. **tiny-c** provides an easy-to-use, easy-to-modify programming environment for any suitably equipped Atari computer. **tiny-c** is an interactive, INTERPRETIVE language that implements a very usable subset of the extremely power C language.

OSS now then proudly presents **tiny-c** for your Atari Home Computer. **tiny-c** includes the Portable Program Preparation System for ease of software development. Since FULL source is included, the user may customize the system as desired. The comprehensive library which is included allows easy access to all features of OS/A+.

tiny-c is undoubtedly the easiest introduction ever to the world of structured languages. **tiny-c** could very appropriately be used as a language for programming instruction, as as first step up from BASIC, or as an experimenter's tool.

The OSS **tiny-c** package includes a comprehensive user's guide, which serves both as an introduction to structured programming and as a **tiny-c** reference manual.

SpeedRead+

Busy People • Executives • Secretaries
Teachers • Students • EVERYONE

Yes, everyone can benefit from **SpeedRead**+.

For the first time anywhere, the full power of the personal computer is being used to help you read faster and better.

SpeedRead+ goes far beyond mere mechanical devices are capable of: **SpeedRead**+ functions at your reading speed, from now to thousands of words per minute. **SpeedRead**+ can help you overcome such reading problems as vocalization, single word stops, sub vocalization, and more.

SpeedRead+ offers four modes designed to speed your progress in reading for speed, enjoyment, comprehension, and retention:

Single Phase .....for eye recognition of words and phrases
Double Phase .....for eye movement, focus, and timing
Random Phase .....for peripheral vision expansion
Column Phase .....scanning paragraphs with one stop per line

In all four modes, **SpeedRead**+ offers you additional features which help you train your eyes and brain to function as the incredible precision machine they were meant to be:

- 5 selectable phrase widths from one word to one line
- 200 selectable speeds from 5 to over 2000 words/minute
- Easy control of selection usually single keystroke
- Change speeds while reading via keystroke or joystick

SpeedRead+ comes complete with classic short stories for your reading practice and pleasure. But **SpeedRead**+ was designed for ease of use and expansion, so use any appropriately named text file: a story, stock market report, the news, etc.

Naturally, the **SpeedRead**+ package includes a comprehensive multi-level user guide, complete with summary instructions, detailed explanations of each choice, and explanations of slow reader problems and how to correct them with appropriate **SpeedRead**+ exercises. Also included is a simple multiple choice examination program, for use with user supplied quizzes.

SpeedRead+ for Atari Home Computers requires 16K and a disk drive. **SpeedRead**+ for the Apple II uses 48K and a disk drive. Inquire for details on other versions.

MORE PROGRAMMING AIDS

MEANINGFUL ERROR MESSAGES
Now no need to look up those error numbers. BASIC A+ tells you what the problem is.

TRACE
Use the TRACE command to follow your program flow as each line is executed.

SET and SYS
Allows the BASIC A+ user to change and examine system parameters, such as: disallow breaks, change tab width for print, and more.

INPUT "..."
Output a prompt string and request keyboard input with a single statement.

AND EVEN MORE!!!

There's more. More than we can possibly show here. Things like optional zero-time *for* loops, optional lower case input, easy program chaining, and overlays. And more.

No other Basic for Atari can match BASIC A+ when it comes to features, compatibility, and *ease of use.*

P.S. And, of course, BASIC A+ is available to those Apple II programmers who need a business-oriented BASIC. (But caution: BASIC A+ is not compatible with Applesoft.)

BUG/65

Now get the most powerful debugger yet for your Atari or Apple computer. **BUG/65** includes all the traditional debugging operations: display memory, change memory, disassembly, instant assembly and more. But **BUG/65** shows its real power with such features as: a breakpoint capability that allows for "conditional breakpoints" (i.e., breakpoints that only happen if some register has some particular value, etc.), and a single step and trace mode that even displays the status register in a readable fashion. **BUG/65** is a stand-along program which allows you to read files into memory (optionally with an offset), write files, and read or write single sectors. Still not enough? How about allowing **BUG/65's** output to go only to the printer, so any display you have on the screen will not be affected. And one more unique and powerful feature: **BUG/65** can be loaded ANYWHERE in memory, so as not to distrub your program.

So why not make **BUG/65** part of your software tools, and make debugging (almost) fun for a change!

MAC/65

MAC/65 is a product that is uniquely OSS. It is the most logical upgrade for either the Atari Assembler-Editor Cartridge or our earlier EASMD.

The EDITOR

MAC/65's editor is the same familiar line oriented editor that comes with both the cartridge and EASMD. Excepting that now there are two edit modes. TEXTMODE allows you to enter code like any other editor. EDIT mode though, is the FIRST difference you'll notice about MAC/65. When in EDIT mode the editor does syntax checking!! That's right, every source line is checked for proper assembly language syntax when it is entered.

The ASSEMBLER

Again, MAC/65's assembler can handle everything the cartridge and EASMD can. Such as source code in memory or on disk, object code in memory or on disk, etc. Even all the mnemonics are the same. But the resemblance is only skin deep: Ask for an assembly and watch MAC/65 come into it's own! MAC/65 can do memory to memory assemblies at the rate of thousands of lines per minute. Even disk to disk assemblies proceed at hundreds of lines per minute...over 25 times faster than the cartridge. The most unique thing about MAC/65 is its macro power. Now you can esily find out how many arguments were passed to a macro, extract the length of a literal string argument, find out if a label has been defined and/or referenced, and much more. Naturally you may use nested macros, powerful conditional assembly directives (.IF, .ELSE, .ENDIF), usable listing controls, included files, and other control and formatting directives. MAC/65 also features a complete and comprehensive array of operators such as: +, *, −, /, &, <, >, <=, >=, =, <>, !, .AND, .OR, .NOT, and more, including low-byte-of-address and high-byte-of-address in accordance with MOS Technology standard usage.

But That's Not All

Not only do you get the syntax checking editor and the powerful macro assembler, you also get BUG/65, a unique and powerful debugger that alone sells for **$34.95**. See the description of BUG/65 in this brochure.

OS/A+

What can you do with an operating system that gives *YOU* control? PLENTY! With **OS/A+** you can add your own device drivers, add your own commands, and access all system features from C/65 or the assembly language level almost as easily as from BASIC A+.

OS/A+ is our name for an operating system that is interfaced to the user via a general purpose, keyboard oriented, command processor. In addition to several powerful intrinsic commands, any system utility program may be invoked simply by entering its name. And, of course, the utility may examine the invoking command line and process parameters, filenames, etc. Even our power BASIC A+ is treated as a utility by **OS/A+**!

Underneath the simplicity and flexibility of the **OS/A+** console processor lies the real power of the OSS operating system. A truly device independent user interface simplifies the application programmers task: there are no special calls for the console, printer, or disk because all device and files are treated alike. A program can get a byte from the keyboard, a disk file, or a serial port with exactly the same OS command format — only the file (device) name need change.

And now available from OSS is **Version 4 OS/A+** for use on double density (and larger) disk drives such as those from PERCOM, MPC, SOFTWARE PUBLISHERS, and even CORVUS (Apple II Corvus only). What does that mean to Apple and Atari owners? Simply stated, now there is a DOS which can support any size disk drive, up to 16 megabytes or more, and which provides TRUE RANDOM ACCESS file support.

SYSTEM UTILITIES

Included with both versions of **OS/A+**: Format and initialize new disks, copy files, and duplicate entire diskettes. And *YES,* you can duplicate or copy our disks. Perhaps the best news is that a simple, workable BATCH capability is standard.

Unless otherwise noted, all OSS products require 48K and at lease one disk drive. We recommend 64K for the Apple version of OS/A+.

OSS Products
are available from this dealer

Optimized Systems Software, Inc.,